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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,509	03/14/2001	Yoshitaka Dansui	L7016.01105	1885

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EXAMINER

HODGE, ROBERT W

ART UNIT PAPER NUMBER

1746

DATE MAILED: 01/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/805,509

Applicant(s)

DANSUI ET AL.

Examiner

Robert Hodge

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-7, 18, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-7, 18, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/12/05 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed 11/28/05 have been fully considered but they are not persuasive. First and foremost applicants have added new matter to claim 18. The examiner could not find any support in applicants' specification for the negative limitation added to claim 18. This will be addressed further in the proceeding office action. The examiner is still not persuaded by applicants statement that their product is materially different than that of the prior art because the process steps to make said product are different. Applicants are directed to MPEP 2113: Product-by-Process Claims: PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS. Therefore all previous rejections will be maintained.

***Claim Objections***

3. Claims 20 and 21 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It is unclear how process steps in apparatus claims further limits the structure of the parent claim.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 2-7, 18, 20 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The negative limitation "in the absence of any rare earth compound except that activated in step (a)" is new matter and there is no support in applicants' specification for said negative limitation.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 2, 3, 6, 7, 18, 20 and 21 rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,576,368 hereinafter Ogasawara et al.

8. Ogasawara et al. reference disclose a nickel positive electrode active material comprising nickel hydroxide particles and at least one rare earth compound (claim 1), the at least one rare earth compound having characteristics produced by treating a rare earth oxide with an aqueous alkaline solution and an oxidizing agent (claims 2 and 9).

The 'Ogasawara et al. reference discloses the claim limitations by disclosing the manufacture of a positive active material, obtainable by combining nickel hydroxide with yttrium oxide, wherein the yttrium oxide is treated with an aqueous solution of sodium hydroxide (claim 6) and an aqueous sodium hypochlorite (claim 7) oxidizing solution. Column 5, lines 13-63. Ogasawara et al. further discloses a nickel positive electrode used in a nickel metal hydride battery (column 1, lines 15 et seq.)

9. As to claim 3, disclosing an yttrium content of 3% with respect to the amount of nickel hydroxide, this meets the claim limitations of 0.1 to 4% based on nickel hydroxide particles. See column 5, line 59 *et seq.*

10. Ogasawara et al. also discloses that the above system includes a negative electrode and a hydrogen absorbing alloy and a separator. Column 3, line 65 *et seq.* Disclosing that the sealed alkaline storage battery of the present invention includes the

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positive electrode of the present invention, a negative electrode and a hydrogen storage alloy electrode. The separator is inherent in every battery, and is disclosed at column 6, line 7 *et seq.* "a separator made of polyamide nonwoven fabric."

11. The examiner notes that claim 18 is admitted to be a product-by-process claim by the applicants. "Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps". See MPEP § 2113.

Therefore because all of the structure recited in claim 18 is present in the Ogasawara et al. reference, claim 18 is included in the above 102(e) rejection.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasawara et al. as discussed above in view of United States Patent No. 6,136,473 Furukawa et al. Hereinafter Furukawa.

14. With specific respect to claims 4 and 5, further limiting claim 2, and disclosing that the rare earth compound is a combination of the yttrium/ytterbium compound and the lutetium compound, wherein the two compounds meet  $50 \geq X \geq 5$ , when weights of the yttrium compound and the lutetium compound are (100-X) % by weight and X % by weight, respectively. Each and every limitation of claims 4 and 5 are disclosed in

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Ogasawara et al. as set forth above, except that the Ogasawara et al. reference fails to fail to explicitly disclose that the rare earth combination is yttrium-lutetium compound and ytterbium-lutetium compound. Wherein the two compounds (Y/Yb-Lu) meet  $50 \geq X \geq 5$ , when weights of the yttrium (or ytterbium) compound and the lutetium compound are (100-X) % by weight and X % by weight, respectively. Furukawa discloses that two or more kinds of selected rare earth elements are ytterbium and lutetium, and a ratio of the content of ytterbium to the contents of ytterbium and lutetium is larger than or equal to 0.75 when converted to an amount of oxide. See e.g. column 5, line 44 *et seq.* also see e.g. column 28, lines 5-10. Ytterbium is disclosed as a specific example of a rare earth, Y, is also disclosed as a desirable rare earth. The artisan would have been motivated to make the instant combination for the reason explicitly disclosed in Furukawa, namely, a composite compound having Yb and Lu as its principal component, for example, is inexpensive because it is formed as an eutectoid when separating and forming the rare earth element from ore. See e.g. column 5, line 51 *et seq.* Additionally the artisan would have been motivated to make the combination because Y, Ho, Er, Tm, Yb and Lu etc. have an effect of shifting the oxygen evolution potential to a more noble potential, thus reducing the likelihood of gas evolution during overcharging. See also column 25, line 48-54, disclosing Yb and Lu and optionally Y.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Hodge whose telephone number is (571) 272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RWH 1-4-06



**MICHAEL BARR**  
**SUPERVISORY PATENT EXAMINER**